Group 2 - Save T-Rex Final Report

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Unfortunately, our team was unable to achieve the results we anticipated. This is mostly due to the difficulties we discovered integrating Python with Unity applications. Not being able to utilize the libraries we hoped to use within Unity really put us in a tough spot. There was not enough time to redevelop the game in Python and continuing with what we had produced meant deploying a two-piece solution. Doing so introduced a new list of problems associated with properly controlling the game with an external agent while also being able to have our AI agent understand the game environment. Although we did not reach the final point of our proposed project, it was still a valuable learning experience. Encountering these struggles provides us with experience which can help us assess project scope in future endeavours. We have learned that when creating applications which use multiple languages across different applications the successful bridging of the two needs to be confirmed very early in the project's lifecycle. This way any problems that are encountered can be properly addressed and the projects development can be adjusted accordingly before reaching a point of no return.

The situation did present an opportunity to explore different ways to overcome issues and the final attempt was to use a text file generated by the game to help the external AI agent understand the environment. On our teams GitHub page there is a short video titled "**ExportingScoreData**" showing this text file recording the score, which was to be used as a signal for when to punish or reward the AI agent.

The other video provided on our GitHub page titled "**Dino.mp4**" showcases what we intended to accomplish with the Unity application that was developed. The video shows an AI agent learning and playing the standard chrome dino game which was the foundation of this project. While we were unsuccessful in deploying a complete solution, we believe we were able to create all the necessary pieces that would have been needed to complete this task had we not encountered the issue of not being able to integrate Python into Unity with the required libraries.